14(10) SOV/98-59-2-2/22

AUTHOR: Yakobson, A.G., Engineer

TITLE: The Damming of the River Volga During the Construction of the Stalingrad Hydroelectric Power Plant (Perekrytiye rusla Volgi na stroitel'stve Stalingradskoy gidroelektrostantsii)

PERIODICAL: Gidrotekhnicheskoye stroitel'stvo, 1959, Nr 2, p 4-11 (USSR)

ABSTRACT: The total width of the Volga river at the Stalingrad hydroelectric power plant site is 4 km, 3.1 km of which was partitioned by cofferdams to protect the main buildings of the plant, the navigation gates and the left shore earth dam. The author describes in detail the damming of the remaining 900 m

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14(10) SOV/98-59-2-2/22

The Damming of the River Volga During the Construction of the Stalingrad Hydroelectric Power Plant

of the river bed, which was gradually narrowed by a specially constructed lengthwise cofferdam along which natural sand alluvions were silted up by the river. There are 5 photos, 1 layout, 2 profiles and 1 table.

Card 2/2

YAKOBSON, A. Kh.

Radiolampa (Radio Tubes (Radio Valves), 45 p., Moscow, 1951.

GINZBURG, Z.B.; YAKOBSON, A.Kh., redaktor; SKOVRTSOV, I.M., tekhnicheskiy redaktor

[Resistance and condensers in radio circuits] Soprotivleniia i kondensatory v radioskhemakh. Moskva, Gos. energ. izd-vo 1953. 87 p. (Massovaia radiobiblioteka, no.193) (MLRA 7:7)
(Electric resistance) (Condensers (Electricity))
(Radio circuits)

YAKOBSON, A. Kh.

NELEPETS, V.S.; BERG, A.I., redaktor; DZHIGIT, I.S., redaktor; YELIN, O.G., redaktor; KULIKOVSKIY, A.A., redaktor; MOZHZHEVELOV, B.N., redaktor; SMIRNOV, A.D., redaktor; TARASOV, F.I., redaktor; TRAMM, B.F., redaktor; CHECHIK, P.O., redaktor; SHAMSHUR, V.I., redaktor; YAKOBSON, A.Kh., redaktor; FRIDKIN, A.M., tekhnicheskiy redaktor

[Radio engineering in railroad transportation] Radiotekhnika na zheleznodorozhnom transporte. Moskva, Gos. energ. izd-vo, 1954. 43 p. (Massovaia radiobiblioteka, no. 196) [Microfilm] (MLRA 7:10)
(Radio) (Railroads--Electronic equipment)

GOL'DREYER, I.G.; YAKOBSON, A.Kh., redaktor; BERG, A.I., redaktor; DZHIGIT, I.S., redaktor; YELIN, O.G., redaktor; KULIKOVSKIY, A.A., redaktor; MOZHZHEVELOV, B.N., redaktor; SMIRNOV, A.D., redaktor; TARASOV, F.I., redaktor; TRAMM, B.F., redaktor; CHECHIK, P.O., redaktor; SHAMMUR, V.I., redaktor; VORONIN, K.P., tekhnicheskiy redaktor.

[Feedback electronic cascades] Lampovyi kaskad s obratnoi sviaz'iu. Moskva, Gos. energeticheskoe izd-vo, 1954. 86 p. (Massovaia radiobiblioteka, no. 201) (MLRA 7:11)
(Amplifiers, Electron tube)

YAKOBSON, A. Kh.

VYSOTSKIY, Mikhail Zinov'yevich; PARFENT'YEV, A.I., redaktor; YAKOBSON, A.Kh, redaktor; VORONTSOVA, Z.V., tekhnicheskiy redaktor

[Technology of the sound recording of motion pictures] Tekhnologiia zvukozapisi kinofil'mov. Moskva, Gos. izd-vo "Iskusstvo," 1954. 211 p.
(Motion pictures, Talking) (MLRA 7:8)
(Sound--Recording and reproducing)

MATVEYENKO, A.S.; YAKOBSON, A.Kh., redaktor; VORONTSOVA, Z.V., tekhnicheskiy redaktor.

[Repairing motion-picture sound apparatus] Remont zvukovosproizvodiashchei kinoapparatury. Moskva, Gos. izd-vo "Iskusstvo." Pt. 2. 1954. 255 p. (MLRA 8:2)
(Motion-picture projectors) (Sound--Apparatus)

PUZANOV, N.P.; MEL'NIKOV, L.V.; PAUL', G.P.; CHERKASSKIY, A.S.; TSVYLEV, A.S.; YAKOBSON, A., redaktor; MUNTYAN, T., tekhnicheskiy redaktor.

[Course for radiotelegraph operators] Kurs radiotelegrafista. Moskva, Izd-vo DOSAAF, 1954. 335 p. [Microfilm] (MLRA 7:11)
(Telegraph, Wireless)

BURGOV, Vyacheslav Alekseyevich; TAGER, P.G., redaktor; YAKOBSON, A.Kh., redaktor; SHILINA, Ye.I., tekhnicheskiy redaktor. [redacted]

[Fundamentals of sound recording and reproduction] Osnovy zapisi i vosproizvodeniia zvuka. Moskva, Gos.izd-vo "Iskusstvo," 1954. 703 p.
(MIRA 8:5)

(Sound--Recording and reproducing)

OSKOLOV, Il'ya Nikolayevich; SOKOLOV, Fedor Fedorovich; YAKOBSON, A.Kh.
redaktor; KARANDASHOV, S.A., redaktor; CHICHERIN, A.N., tekhnicheskiy redaktor.

[Selenium rectifiers] Selenovye vypriamiteli. Moskva, Gos.izd-vo "Iskusstvo," 1955. 95 p. (MLRA 8:11)
(Electric current rectifiers)

YAKOBSON, Avsey Khananovich; OSKOLKOV, I.N., kand.tekhn.nauk, red.;
EYSYMONT, L.O., red.; VOLYNTSEVA, V.A., tekhn.red.

[Elementary electrical and radio engineering] Elementarnaia elektroradiotekhnika. Pod red. I.N.Oskolkova. Moskva, Gos. izd-vo "Iskusstvo," 1955. 226 p. (MIRA 12:4)
(Electric engineering)

GOLDOVSKIY, Yevsey Mikhaylovich; YAKOBSON, A.Kh., redaktor; ALEKSANDROV,
V.I., tekhnicheskiy redaktor

[Problems in motion-picture projection] Problemy kinoproektsii.
Moskva, Gos. izd-vo "Iskusstvo," 1955. 275 p. (MLRA 8:8)
(Motion-picture projection)

YAKOBSON, A. Kh.

FEDOSEYEVA, Ye.O.; TRET'YAKOVA, A.A.; VEKSLER, G.S., kandidat tekhnicheskikh nauk, redaktor; YAKOBSON, A.Kh., redaktor; MATISSEN, Z.M., tekhnicheskiy redaktor

[Electric supply for motion-picture apparatus] Elektropitanie kinoustanovok. Moskva, Gos.izd-vo "Iskusstvo," 1955. 306 p. (MIRA 9:3)
(Motion-picture projectors)

IVANOV, Boris Timofeyevich; YAKOBSON, A.Kh., redaktor; CHICHERIN, A.N.,
tekhnicheskiy redaktor

[Stereocinematography] Stereokinotekhnika. Moskva, Gos. izd-vo
"Iskusstvo," 1956. 215 p. (MLRA 9:7)
(Motion pictures, Three-dimensional)

KARIPIDI, Sokrat Dmitriyevich; YAKOBSON, A.Kh., redaktor; CHICHERIN, A.N.,
tekhnicheskiy redaktor

[Control films] Kontrol'nye fil'my. Moskva, Gos. izd-vo "Iskusstvo,"
1956. 91 p. (MIRA 10:1)
(Motion picture projection)

BURGOV, V.A., sostavitel', redaktor; ISTOMIN, I.V. [translator]; SHEYNEMAN, M.Kh. [translator]; YAKOBSON, A.Kh., redaktor; SHILINA, Ye.I., tekhnicheskiy redaktor

[Magnetic sound recording; a collection of translated papers] Magnitnaia zapis' zvuka; sbornik perevodnykh materialov. Sost. i red. V.A.Burgov. Moskva, Gos. izd-vo "Iskusstvo," 1956. 397 p. (MLRA 10:2)

(Magnetic recorders and recording)

GOLOD, I.S.; PROVORNOZ, S.M., otvetstvennyy redaktor; YAKOBSON, A.Kh.,
redaktor; MALEK, Z.N., tekhnicheskiy redaktor

[Film developing machinery] Proiavochnye mashiny. Moskva, Gos.
izd-vo "Iskusstvo," 1956. 362 p. (MIRA 10:3)
(Photography--Developing and developers)

SAZHIN, Leonid Ivanovich; YAKOBSON, A.Kh., redaktor; MATISSEN, Z.M., tekhnicheskiy redaktor

[Current supply for stationary motion-picture installations] Elektropitanie statsionarnykh kinoustanovok. Moskva, Gos. izd-vo "Iskusstvo," 1956. 182 p. (MIRA 9:11)

(Motion-picture projection)

YAKOBSON, A. Kh.

PANFILOV, Nikolay Dement'yevich; GARDASH'YAN, Vladimir Mkrtychevich;
YAKOBSON, A.Kh., red.; IVANOVA, L.A., tekhn.red.

[Acoustics of motion-picture theaters] Akustika kinoteatra.
Moskva, Gos.izd-vo "Iskusstvo," 1957. 95 p. (MIRA 11:6)
(Motion-picture theaters)
(Architectural acoustics)

Yakobson, A.Kh.

PARFENT'YEV, Andrey Ivanovich; YAKOBSON, A.Kh., red.; IVANOVA, L.A., tekhn.red.

[Magnetic recording in motion-picture engineering] Magnitnaia zapis' v kinotekhnike. Moskva, Gos.izd-vo "Iskusstvo," 1957. 277 p. (MIRA 10:12)

(Magnetic recorders and recording)

GRUDINSKAYA, Galina Petrovna; YAKOBSON, A.Kh., red.; BORUNOV, N.I., tekh. red.

[Propagation of microwaves] Rasprostranenie ul'trakorotkikh radiovoln. Izd.2., perer. Moskva, Gos.energ.izd-vo, 1960. 103 p. (Massovaia radiobiblioteka, no.382) (MIRA 14:5)

(Microwaves)

KUBLANOVSKIY, Yakov Solomonovich; YAKOBSON, A.Kh., red.; SHIROKOVA, M.M., tekhn. red.

[Transitron generator] Tranzitronnyi generator. Moskva, Gos. energ. izd-vo, 1961. 39 p. (Massovaia radiobiblioteka, no.421) (MIRA 14:11)
(Oscillators, Electron-tube)

ZOTOV, Vladimir Yemel'yanovich; YAKOBSON, A.Kh., red.; VORONIN, K.P., tekhn.red.

[Transistor pocket radios] Radioliubitel'skie karmannye priemniki na transistorakh. Moskva, Gos.energ.izd-vo, 1961. 47 p. (Massovaia radiobiblioteka, no.399). (MIRA 14:12)
(Transistor radios)

DOL'NIK, Anatoliy Grigor'yevich; YAKOBSON, A.Kh., red.; BORUNOV, N.I., tekhn. red.

[Loudspeakers] Gromkogovoriteli. Izd.3., perer. i dop. Moskva, Gosenergoizdat, 1961. 87 p. (MIRA 15:7)
(Loudspeakers)

SAMOYLOV, Vladimir Fedorovich; YAKOBSON, A.Kh., red.; BORUNOV, N.I.,
tekhn.red.

[Synchronization of television sweep generators] Sinkhronizatsiia
generatorov televizionnoi razvertki. Gos.energ.izd-vo, 1961.
95 p. (Massovaia radiobiblioteka, no.395) (MIRA 14:6)
(Television—Receivers and reception)

YEL'YASHKEVICH, Samuil Abramovich; YAKOBSON, A.Kh., red.; LARIONOV,
G.Ye., tekhn.red.

[Use of a wobbulator in tuning a television receiver] Nastroika
televizora s pomoshch'iu generatora kachaiushcheisia chastoty.
Moskva, Gos.energ.izd-vo, 1962. 63 p. (Massovaia radiobiblioteka,
no.430). (MIRA 15:4)
(Television—Receivers and reception)

GOL'DENBERG, Lev Moiseyevich; ZAYEZDNYY, A.M., otv. red.; YAKOBSON, A.Kh., red.; ROMANOVA, S.F., tekhn. red.

[Principles of pulse techniques] Osnovy impul'snoi tekhniki. Moskva, Sviaz'izdat, 1963. 399 p. (MIRA 16:7)
(Pulse techniques (Electronics))

METUZALEM, Yevgeniya Vasil'yevna; RYMANOV, Yevgeniy Afanas'yevich;
YAKOBSON, A.Kh., red.; BUL'DYAYEV, N.A., tekhn. red.

["Zaria", "Zaria-2", "Sputnik", and "Volkhov" television receivers]Televizory "Zaria", "Zaria-2", "Sputnik", "Volkhov". Moskva, Gosenergoizdat, 1962. 87 p. (Massovaia radiobiblioteka, no.458) (MIRA 16:3)
(Television—Receivers and reception)

METUZALEM, Yevgeniya Vasil'yevna; RYMANOV, Yevgeniy Afanas'yevich;
YAKOBSON, A.Kh., red.; FRIDKIN, L.M., tekhn. red.

["Rubin", "Rubin-102", and "Radii" television receivers]
"Rubin", "Rubin-102", "Radii". Moskva, Gosenergoizdat,
1963. 120 p. (Massovaia radiobiblioteka, no.489)
(MIRA 17:3)

UDALOV, Aleksandr Petrovich; SUPRUN, Boris Antonovich; AMARANTOV, V.N., otv. red.; YAKOBSON, A.Kh., red.; TRISHINA, L.A., tekhn.red.

[Redundant coding in transmitting information by binary codes] Izbytochnoe kodirovanie pri peredache informatsii dvoichnymi kodami. Moskva, Izd-vo "Sviaz'," 1964. 269 p. (MIRA 17:3)

TEPLOV, Nikolay Leont'yevich; MEL'NIKOV, V.S., retsenzent;
YAKOBSON, A.Kh., red.

[Interference rejection of discrete information transmitting systems] Pomekhoustoichivost' sistem peredachi diskretnoi informatsii. Moskva, Izd-vo "Sviaz'" 1964. 358 p.
(MIRA 17:8)

SHMIDEL', Azya Aronovich; KNAVA, Vladimir Leopol'dovich;
YAKOBSON, A.Kh., red.

[Design of amplitude equalizers] Raschet amplitudnykh vyravnivatelei. Moskva, Sviaz', 1965. 119 p. (MIRA 18:4)

FEL'DSHTEYN Aleksandr L'vovich; YAVICH, Lev Rafaelovich. Prinimala uchastiye PROKHOROVA, N.I.; YAKOBSON, A.Kh.

[Synthesis of four-terminal and eight-terminal microwave networks] Sintez chetyrekhpoliusnikov i vos'mipoliusnikov na SVCh. Moskva, Izd-vo "Sviaz'," 1965. 352 p. (MIRA 18:5)

POLEKHIN, Sergey Illarionovich; POPOVA, N.E., otv. red.;
YAKOBSON, A.Kh., red.

[Theory of wire communication] Teoriia sviazi po provodam.
Moskva, Sviaz', 1965. 374 p. (MIRA 18:7)

BALASHOV, Mikhail Ivanovich; YAKOBSON, A.Kh., red.

[Radio amateur's measuring devices] Izmeritel'nye pribory radioliubitelia. Moskva, Energiia, 1965. 31 p. (Massovaia radiobiblioteka, no.576) (MIRA 18:8)

YAKOBSON, Aron Moiseyevich

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Krasiteli dlya mekha (Dyes for fur) 2. izd. Moskva, Gizlegprom, 1955.
134 p. diagrs.
Bibliographical footnotes.

YAKOBSON, A. M.

"The Inward Compton Effect." Cand Phys-Math Sci, Moscow State Pedagogical Inst imeni V. I. Lenin, 10 Jan 55. (VM, 30 Dec 55)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institutions (12)
SO: Sum. No. 556, 24 Jun 55

USSR/Nuclear Physics - Compton Effect YAKOBSON, A. M. FD-3352

Card 1/1 Pub. 146-24/28

Author : Yakobson A. M.

Title : Internal Compton effect (Letter to the editor)

Periodical : Zhur. Eksp. i Teor. Fiz., 29, No 5, 702-705, 1955

Abstract : Some additional conclusions are derived from author's dissertation (Moscow State Pedagogical Inst., 1954). The internal Compton effect is assumed determined by the lowest, but different from zero, nuclear multipole. After termination of this work an article on the same subject was published by L. Spruch and G. Goertzel in Phys. Rev. 94, 1671, 1954. Particular results concur in both articles.

Institution : Moscow State Pedagogical Institute

Submitted : March 18, 1955

YAKOBSON, A.M., kandidat fiziko-matematicheskikh nauk.

Direct observation of the crystal lattice. Priroda 46 no.4: 78-79 Ap '57. (MLRA 10:5)

1. Vsesoyuznyy institut nauchnoy i tekhnicheskoy informatsii Gostekhniki SSSR i Akademii nauk SSSR (Moskva)
(Crystal lattices)

18(7)

AUTHORS: Berezkina, L. G., Chizhikov, D. M., Yakobson, A. M. SOV/32-25-9-16/53

TITLE: Application of Gamma Radiation in the Investigation of the Kinetics of the Reduction of Smeltings

PERIODICAL: Zavodskaya laboratoriya, 1959, Vol 25, Nr 9, pp 1074-1076 (USSR)

ABSTRACT: A method for the continuous control of the metal reduction from meltings was developed. It is based on a weakening of the intensity of the gamma radiation travelling through the smeltings due to one ray of the gamma rays being weakened by a layer of the separating metal. The method was used to investigate the reduction kinetics of lead from smeltings of lead silicates (I) with the following composition: $4PbO \cdot SiO_2$ and $2PbO \cdot SiO_2$. On the separation of Pb from (I) a change in the density of the medium by approximately 30% results, the intensity of the above mentioned penetrating ray being changed by 40 - 50%. Measurements were carried out on a unit (Fig 1) using Co^{60} of approximately 120 Millicurie, a photoelectron multiplier FEU-19M, a stabilized "Orekh" type rectifier and a micro-ammeter M-91. The apparatus was calibrated by the insertion of weighed pieces of lead into the smelting. The sensitiveness of the apparatus with respect to

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Application of Gamma Radiation in the Investigation of SOV/32-25-9-16/53
the Kinetics of the Reduction of Smeltings

a displacement of the silicate - lead limit in the smelting amounted to ±0.2 mm with the depth of the lead layer changing from 5 to 6 mm. Diagrams are given on the influence of time and temperature on the reduction degree of lead from the smelting $4PbO \cdot SiO_2$ (Fig 3). By evaluating the kinetic data obtained the diffusion coefficients in the smelting were established. Some limits are given which must be taken into consideration when using the method described. There are 3 figures, 1 table, and 1 Soviet reference.

ASSOCIATION: Institut metallurgii Akademii nauk SSSR im. A. A. Baykova (Institute of Metallurgy, Academy of Sciences, USSR, imeni A. A. Baykov)

Card 2/2

80975

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S/180/60/000/03/002/030
E111/E352

AUTHORS: Vertman, A.A., Samarin, A.M. and Yakobson, A.M. (Moscow)

TITLE: Structure of Liquid Eutectics

PERIODICAL: Izvestiya Akademii nauk SSSR, Otdeleniye tekhnicheskikh nauk, Metallurgiya i toplivo, 1960, Nr 3, pp 17-21 (USSR)

ABSTRACT: V.I. Danilov and collaborators (Refs 1,2) carried out X-ray scattering work on liquid eutectic alloys. It was concluded (Ref 1) that in such liquids groupings exist with the structure of one of the components. The present authors do not consider the evidence unambiguous and mention another explanation (Ref 3) and views based on other experimental methods (Refs 5-8). The authors consider sedimentation-analysis methods promising for determining the size of "colonies" in the liquid state and describe their work using this technique with a centrifuge for Pb-Sn (K.P. Bunin -(Ref 9) had previously shown the applicability of this method). They used a high-temperature centrifuge, the two cups of which contained resistance furnaces. The rotating shaft was provided with rings and brushes, the wires passing through the hollow shaft and hollow cupholders. The test alloys, in a thick-walled steel crucible, were slowly

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Structure of Liquid Eutectics S/180/60/000/03/002/030
E111/E352

heated to the required temperature. After rotating at 5 600 rpm for 15-30 min the crucibles were withdrawn and quenched in water. Furnace temperature was again measured, the experimental temperature being the mean of this and the first temperature. A reference sample was heated in an identical stainless-steel crucible and quenched in water; its composition was taken to be the initial composition of the centrifuged alloy. The crucibles with the centrifugal samples were cut in half vertically and drilled for analysis at different depths. The results (tabulated) showed that centrifuging produced significant concentration differences between top and bottom. From this the authors calculate the volume of the "colonies" to be 91×10^{-21} cm^{3} at 225 °C, 130×10^{-21} at 380 and 109×10^{-21} at 800 for alloys with 76.0, 74.0 and 74.0 at.% Sn, respectively. Such a separation is possible if the colonies are of the order of 10^{3} atoms. This agrees with Barten'yev's views (Ref 10).

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E111/E352

Structure of Liquid Eutectics

There are 1 table and 10 references, 9 of which are Soviet and 1 English.

SUBMITTED: June 28, 1959

Card 3/3

5(4)

S/032/60/026/02/019/057
B010/B009

AUTHORS: Berezkina, L. G., Yakobson, A. M.

TITLE: Determination of the Temperature Gradient of the Density From the Absorption of Permeating Radiation

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol 26, Nr 2, pp 171 - 172 (USSR)

ABSTRACT: A contactless method for the determination of the temperature gradient of the density from the weakening of the intensity of gamma rays permeating the substance is described. This weakening is expressed by equation $I = I_0 e^{-\mu \varrho x}$ (1) (I_0 = radiation intensity without absorption, μ = mass coefficient of absorption, ϱ = density of the medium, x = thickness of absorptive layer), according to which the ratio of radiation intensities with a temperature change of the substance from t_0 to t reads $\ln \frac{I_t}{I_{t_0}} = -\mu(\varrho x - \varrho_0 x_0)$ (2) ($\varrho, \varrho_0, x, x_0$ = densities of the medium and thicknesses of the absorptive layer

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Determination of the Temperature Gradient of the Density From the Absorption of Permeating Radiation S/032/60/026/02/019/057 B010/B009

at t and t_0, respectively). The dependence of $\ln \frac{I_t}{I_{t_0}}$ on Δt can be represented with sufficient accuracy by a straight line in the case of tin and lead silicate melts (Fig). The measurements were carried out by means of an apparatus previously described (Ref 1). Zirconium crucibles were used. The values obtained are in satisfactory agreement with data obtained by M. P. Slavinskiy (Ref 2) as well as V. A. Zyazev and O.A.Yesin (Ref 3). A fast cooling of the $2PbO \cdot SiO_2$ melt results in vitrification. The glass shows a greater density than the liquid phase. If the cooling takes place slowly, crystalline lead orthosilicate forms. In this case the density of the solid phase is lower than that of the liquid phase and depends on the rate of crystallization. This is apparently due to the formation of small cavities. There are 1 figure and 3 Soviet references.

ASSOCIATION: Institut metallurgii Akademii nauk SSSR (Institute of Metallurgy of the Academy of Sciences of the USSR)

Card 2/2

55704
S/137/62/000/004/003/201
A006/A101

5.4100

AUTHORS: Yakobson, A. M., Berezkina, L. G.

TITLE: A contactless method of determining the temperature dependence of substance density on attenuation of penetrating radiation

PERIODICAL: Referativnyy zhurnal, Metallurgiya, no. 4, 1962, 7, abstract 4A32 (V sb. "Fiz. khim. osnovy proiz-va stali", Moscow, AN SSSR, 1961, 354)

TEXT: In the proposed method, Co^{60} of about 120 μcurie activity is used as a gamma-radiation source. A crucible with the substance investigated is placed in a fixed position in the furnace. There are mica apertures in the shell and lining of the furnace along the passage of the gamma ray beam. The temperature is measured with a Pt/Pt-Ph thermocouple whose junction is placed on the substance surface in the crucible. The method shows the reproduction of literature data for Sn and Pb silicate melts with up to 3% accuracy. The method makes it possible to determine on one specimen the relative changes in density with temperature, including solidifying and further cooling.

[Abstracter's note: Complete translation] T. Kolesnikova

Card 1/1

YAKOBSON, A.M.

Calculating the response of the γ-activation analysis. Trudy Inst. met. no.8:178-180 '61. (MIRA 14:10)
(Activation analysis)

YAKOBSON, A.M.

Sensitivity evaluation and calculation of the optima parameters of cobalt γ-defectoscope with direct observation of defects on television screens. Trudy Inst. met. no.8:187-216 '61. (MIRA 14:10)

(Gamma rays--Industrial applications)
(Metals--Defects)
(Industrial television)

37053
S/032/62/028/005/003/009
B163/B102

1.8000

AUTHORS: Yakobson, A. M., and Dzhgalyan, K. M.

TITLE: Use of monocrystalline scintillators for X-ray vision

PERIODICAL: Zavodskaya laboratoriya, v. 28, no. 5, 1962, 577-583

TEXT: When hard γ-radiation from radioactive sources or the bremsstrahlung from accelerator targets is used for industrial radiographic control, monocrystalline CsI(Tl) scintillator screens are preferable to fluorescent screens or photographic emulsions, especially in continuous process lines. A prototype of a pipe detector ("gamma introscope") working with γ-radiation of 120 to 160 kev and a scintillator screen of 3 mm thickness and 70 mm diameter has been constructed, and examples for its application are given. Estimates of sensitivity and contrast are made when cavities within a metal (e.g. iron or aluminum) are to be detected. In Fig. 4 the results of such estimates are shown. There are 4 figures.

ASSOCIATION: Institut metallurgii im. A. A. Baykova (Institute of Metallurgy imeni A. A. Baykov)

X

Card 1/1

YAKOBSON, A.M.; DZHGALYAN, K.M.

Experimental determination of the contrast of an X-ray picture showing flaws in materials. Zav.lab. 29 no.7:811-813 '63.
(MIRA 16:8)

1. Institut metallurgii im. A.A.Baykova.
(X-ray spectroscopy) (Materials--Testing)

YAKOBSON, A.M.; NOVITSKIY, F.N.

Theoretical evaluation of the possibilities of the beta-introscopy method. Zav. lab. 29 no.10:1194-1198 '63.
(MIRA 16:12)

1. Institut metallurgii imeni A.A. Baykova.

ACCESSION NR: AP4033613

S/0032/64/030/004/0445/0447

AUTHORS: Yakobson, A. M.; Dzhgalyan, K. M.

TITLE: X ray optical transformation using a roentgen screen and monocrystalline scintillators

SOURCE: Zavodskaya laboratoriya, v. 30, no. 4, 1964, 445-447

TOPIC TAGS: x ray optical transformation, roentgen screen, monocrystalline scintillator, zinc sulfide, cadmium sulfide, silver, resolving power, x ray source PUP 1, x ray tube 3BPM 200, photomultiplier FEU 37, photomultiplier FEU 38, luminescent layer

ABSTRACT: Experiments were performed to compare the intrinsic haziness, resolving power, and radiances of a ZnS•CdS=Ag fluorescent screen with transparent monocrystalline screens of CsI(Tl) and NaI(Tl), using the quality of x-ray-optical transformation at tube voltages of 100-200 kv. A PUP-1 apparatus was used as the x-ray source along with a 3BPM -200 x-ray tube. For comparison with the monocrystalline screens, a commercial ZnS•CdS=Ag screen was used with a luminescence of 250 relative units. The monocrystalline screen was in the form of a plate with a diameter of 120 mm and a thickness of 3 mm. The thickness was so

Card 1/3

ACCESSION NR: AP4033613

chosen that complete absorption (95%) of the incident radiation took place up to a tube voltage of 200 kv. The radiances of the screens were compared with the aid of photomultipliers FEU-37 and FEU-38. The error due to the influence of scattered x-rays did not exceed 1%. As can be seen from the results plotted in Figure 1 of the Enclosure, the radiance of the roentgen screen ZnS•CdS=Ag sharply decreases with increase of the tube voltage, whereas the radiance of the monocrystalline screen does not. It is the granular structure of the luminescent layers in the roentgen screen that leads to the haziness of the screen and significantly impairs the contrasts of small details. Orig. art. has: 2 figures.

ASSOCIATION: Institut metallurgii im. A. A. Baykova (Institute of Metallurgy)

SUBMITTED: 00 ENCL: 01

SUB CODE: SS NO REF SOV: 002 OTHER: 000

Card 2/3

ACCESSION NR: AP4033613

ENCLOSURE: 01

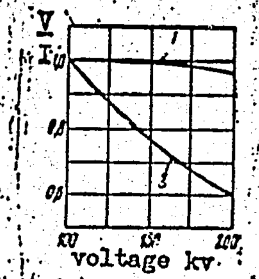

Fig. 1. The ratio of radiative current to the intensity of incident x-rays versus x-ray tube voltage
(1) Scintillator CsI(Tl), 3 mm thick
(2) Roentgen screen

Card 3/3

L 8881-65 EWA(k)/EWT(l)/EWT(m)/EEC(t)/EWP(q)/EWP(b) BAEM(t)/AFMDC JD

ACCESSION NR: AP4046470 S/0032/64/030/010/1232/1235

AUTHORS: Yakobson, A. M.; Dzhgalyan, K. M.

TITLE: The effect of parameters of a scintillation roentgen-optical converter on the exposure of small defects 7 B

SOURCE: Zavodskaya laboratoriya, v. 30, no. 10, 1964, 1232-1235

TOPIC TAGS: scintillation, material defect detection, roentgen optical converter, x ray structure analysis, defect indicator /4

ABSTRACT: The authors presented a method of detecting small material defects by means of special optical apparatus used in conjunction with a roentgen tube. A schematic of the test specimen relative to the parameter definitions used in the system presented is shown in Fig. 1 on the Enclosure. The system is described mathematically by

$$\frac{R}{\rho} = 1 + \frac{\beta}{l},$$

$$\beta = \frac{q(F-H)}{F} + \frac{S\Phi}{Fl} \times$$

$$\times \frac{[F \cdot \gamma + l(1+\gamma)]}{1+\gamma} + \frac{S\gamma}{2(1+\gamma)} \times$$

$$\times \left(\frac{D}{l}\right).$$

Card 1/4

L 8881-65

ACCESSION NR: AP4046470

where R and ρ are the magnified and actual widths of crack image respectively; ℓ is the defect width; q is the diameter of the focal blot of the roentgen tube; S-effective scintillator thickness, f-objective focal distance, D/f- objective light intensity; γ- coefficient of optical reduction (enlargement) of the image; F- source-to-scintillator distance; H - source-to-defect distance; l - optical axis-to-defect distance. Photographic means were used to determine q, and S was determined by means of the length of the light path. Tests were conducted with small wires inserted into resin films. The wires were of various diameters; for each wire size used the ratio $(K'_i/K_i)\lambda$ was computed, where λ - sequence number of the wire, i is index of the parameter varied, and K_i and K'_i are the respective image contrasts for similar wires for various values of parameter λ. Results included a table of calculated and experimental values of $(K'_i/K_i)\lambda$ for several parameter variations; the same $(K'_i/K_i)\lambda$ ratio was plotted for several wire diameters. Absolute image contrast values were tabulated for various wire diameters for roentgen tube potentials of 150 and 200 kilovolts. Orig. art. has: 4 figures, 2 tables, and 3 equations.

ASSOCIATION: Institut metallurgii im. A. A. Baykova (Institute of Metallurgy)

Card 2/4

L 8881-65
ACCESSION NR: AP4046470 0

SUBMITTED: 00 ENCL: 01

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Card 3/4

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ACCESSION NR: AP4046470

ENCLOSURE: 01
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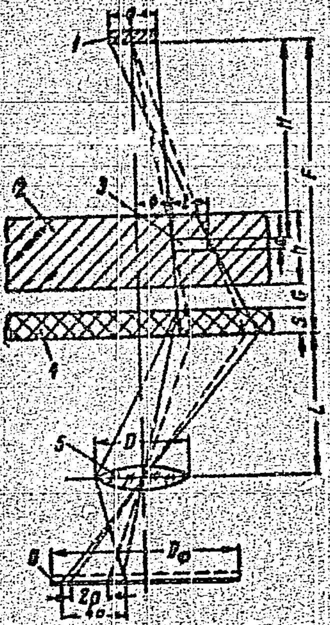

Fig. 1. Scheme of image transformation in scintillation roentgen-optical converter

1 - source; 2 - specimen; 3 - defect; 4 - scintillator; 5 - objective lens; 6 - receiver.

Card 4/4

L 35582-65 EWP(c)/EWP(k)/EWT(d)/EWT(m)/EWP(h)/T/EWA(d)/EWP(l)/EWP(v) Pf-4/Peb
DIAAP

ACCESSION NR: AP5007673 S/0032/65/031/003/0318/0322

AUTHOR: Yakobson, A. M. 28

[redacted]

27

TITLE: Maximum information capacity of a gamma shadowgraph B

SOURCE: Zavodskaya laboratoriya, v. 31, no. 3, 1965, 318-322

TOPIC TAGS: gamma ray, shadowgraph, defect detection, 14 thickness gage 14

ABSTRACT: The maximum 14 information capacity obtainable from a gamma-shadowgraph on the basis of statistical fluctuations from the irradiated defects in an object was calculated theoretically. An equation for determining the minimum defect volume $S_D \cdot d$ is derived

$$S_A \cdot d > \frac{\varkappa_{P_1} \cdot e^{0,5\mu h} \cdot \sqrt{S}}{\mu \sqrt{\tau \cdot N_0}}, \quad (1)$$

which shows that the sensitivity of the gamma-shadowgraph method becomes a maximum at S (area) = S_D at which point the shadowgraph acts as a thickness gauge. (In equation (1) N_0 is the mean gamma-quanta current per second, h is the absorber thickness, and μ is the linear absorption coefficient.) From equation (1) the

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L 35582-65

ACCESSION NR: AP5007673

minimum dimension of the defect is determined for $S = S_D$, or

$$\delta_{min} \geqslant \frac{1.36\tau_{p_e}}{\sqrt{\bar{N}_e \cdot \tau \cdot S}} \quad (2)$$

where $\delta = d/n$. It is shown that for a 1 curie Co^{60} - source on a steel object $\delta \leqslant 0.1\%$. Finally, the following expression is derived for the maximum gamma-shadowgraph resolution for a given relative defect thickness δ,

$$\nu \equiv \frac{1\,\text{см}}{2l'} \leqslant 0.48\sqrt{\bar{N}_e \cdot \tau} \quad (3)$$

Orig. art. has: 15 equations and 2 tables.

ASSOCIATION: Institut metallurgii im. A. A. Boykova (Institute of Metallurgy)

SUBMITTED: 00 ENCL: 00 SUB CODE: IE

NO REF SOV: 001 OTHER: 000

Card 2/2

L 23214-66 EWT(d)/EWT(m)/EWP(c)/EWP(v)/T/EWP(t)/EWP(k)/EWP(h)/EWP(1)/EWA(h)/ETC(m)-6

ACC NR: AP6013575 IJP(c) JD SOURCE CODE: UR/0032/65/031/008/1020/1021

AUTHOR: Lomberg, B. S.; Vertman, A. A.; Yakobson, A. M.; Zheladnov, V. I.; Polyakov, A. Yu. 60 B

ORG: Institute of Metallurgy im. A. A. Baykov (Institut metallurgii)

TITLE: Unit for measuring the interphase metal-slag tension at high temperatures 18 18

SOURCE: Zavodskaya laboratoriya, v. 31, no. 8, 1965, 1020-1021

TOPIC TAGS: furnace, slag, thermocouple, vacuum seal, x ray application, molten metal, corundum, magnesite

ABSTRACT: This device 14 is a resistance furnace with a two-filament heater. A crucible is placed in the isothermal zone of the heater on a magnesite support. The melting point is measured with a platinum-platinum-rhodium thermocouple set on the bottom of the crucible. A device mounted on the top cover permits adding of slag during the experiment. Sealing of the assembly is done with vacuum seals. Viewing windows are covered with 0.1-0.2 mm thick aluminum foil. Construction of the unit permits its operation in either a vacuum or in a neutral gas atmosphere. Experiments were conducted on corundum and magnesite crucibles, 35 mm in diameter. A substrate cut from a cylindrical crucible of smaller diameter made of the same material is placed on the bottom of the crucible. Diameter of the metal drop on this substrate is 18-20 mm. To obtain an upper edge of the

UDC: 620.1.052

Card 1/2

L 23214-66

ACC NR: AP6013575

0

substrate border in the form of a true sphere, it is polished with convex and concave spheres. This provided for symmetry of the liquid metal drop. X-rays were taken with an RUP-1 x-ray device.

Because of the protective shields and the intensive water cooling of the furnace housing it is possible to place the film at a minimum distance from the object. The film is placed in an aluminum cassette protected from scattering radiation by lead plates, 2 mm thick. Distance from the center of the drop to the film is 10 cm and 110 cm to the focal point of the tube. A clear image of the metal drop in the slag is obtained when the voltage on the tube is 180 kilovolts, current force-15 milliamps, and at an exposure time of 40-60 seconds. The interphase stress is calculated according to the dimensions of the drops found. The interphase tension of certain nickel-base alloys with slags was determined. The unit can be recommended for measuring the interphase tension between metals and slags of different compositions. Orig. art. has: 2 figures and 1 table. [JPRS]

SUB CODE: 13 / SUBM DATE: none / ORIG REF: 001

Card 2/2

L 46953-66 EWT(l)/EWP(e)/EWT(m) WH

ACC NR: AP6031033 SOURCE CODE: UR/0109/66/011/009/1682/1686

41
39
B

AUTHOR: Chuyko, G. A.; Yakobson, A. M.

ORG: none

15

TITLE: Principal characteristics of high-lead glass as a material for continuous-dynode secondary-electron multipliers

25

SOURCE: Radiotekhnika i elektronika, v. 11, no. 9, 1966, 1682-1686

TOPIC TAGS: electron multiplier, lead glass, capillary electron multiplier, secondary electron emission, glass

ABSTRACT: Experiments with a new continuous-dynode multiplier (G. W. Goodrich et al., Rev. Sc. Instr., 1961, 32, 7, 846) which uses conducting films on high-lead glass capillaries (0.6--0.8-mm diameter, 40-mm long) are reported. To build an optimal-parameter multiplier, the knowledge of the following glass characteristics is required (W. Baumgartner et al, Z. angew. Math. und Phys., 1962, 13, 5, 514): (1) Energy spectrum of the secondary electrons emitted by the conducting film and (2) Effect of the angle of incidence and energy of primary electrons on the secondary-emission factor of the conducting film. Measurement of these two characteristics is reported; the measured mean secondary-electron energy was found be 8 v. It was also found that the well-known formulas for the secondary-emission

Card 1/2 UDC: 666.112.4:621.383.292

L 46953-66

ACC NR: AP6031033

2

factor are applicable to the case of high-lead glass emission. The experimental bunch of capillaries exhibited a gain of 5×10^6 at a voltage of 3000 v applied to its ends. "In conclusion, the authors wish to thank L. A.Grechanik and Ye. A. Faynberg for lending specimens of high-lead glass for experiments." Orig. art. has: 4 figures, 3 formulas, and 2 tables. [03]

SUB CODE: 09 /// / SUBM DATE: 16Apr65 / ORIG REF: 010 / OTH REF: 006 / ATD PRESS: 5088

Card 2/2 afs

YAKOBSON, A.N., inzh.; GORBOVETS, M.N., inzh.

[redacted] Experimental concrete paver with a drum-type operating mechanism.
Stroi. i dor.mashinostr. 3 no.3:18-19 Mr '58. (MIRA 11:3)
(Pavements, Concrete) (Road machinery)

YAKOBSON, A.N., inzh.; GORBOVETS, M.N., inzh.

Bins with scales for dosing concrete. Stroi. i dor. mashinostr.
3 no. 8:24-25 Ag '58. (MIRA 11:8)
(Bins)

YAKOBSON, A.N., inzh.; TITOV, P.P., inzh.; VERNER, Ye.V., inzh.; KEL'MAN, M.M., inzh.

Automatic unit for molding ornamental ceramic tiles. Stroi.i dor. mashinostr. 5 no.3:25-28 Mr '60. (MIRA 13:6)
(Tiles)

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PROCESSES AND PROPERTIES INDEX

3RD AND 4TH ORDERS

YAKOBSON, A.P.

CA

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Effect of slag viscosity on the run of blast furnaces of Magnitogorsk metallurgical combine, I. V. Stalin. A. P. Yakobson. *Akad. Nauk S.S.S.R., Otdel. Tekh. Nauk, Inst. Mashinovedeniya, Soveshchanie Vyazkosti Zhidkostei i Kolloid. Rastvorov (Conf. on Viscosity of Liquids and Colloidal Solns.)* **3**, 21-31(1941)(Pub. 1945).—Viscosity detns. were made on samples of slag including first slags, final slags, and final slags to which were added varying amts. of CaO, SiO_2, Al_2O_3, and MgO. The first slag samples were made on the basis of calcns. The samples included slags taken when the furnaces were running hard and slags taken when the furnaces were running smoothly. The results of these tests were correlated to the productivity of the heats from which slag samples were taken. For Magnitogorsk conditions a slag is preferred in which the CaO to SiO_2 ratio is 0.94–0.97, and $\frac{(SiO_2 + Al_2O_3)}{CaO} =$ 1.23. A slag of this nature insures a smooth run of the furnace and a normal S content in the pig iron. Slags contg. SiO_2 up to 40% while the Al_2O_3 is not over 18% and MgO around 5% are quite satisfactory as far as the smoothness of the run is concerned, but the S content increases. A slag with $CaO:SiO_2 = 1$ or higher is detrimental to furnace operations when conversion pig is produced. However, when the furnace runs hot, an increased CaO content in the slag has no perceptible effect. The viscosity of slags contg. SiO_2 above 40% rises rapidly and the solidification temp. of such slags drops. The viscosity of slags contg. SiO_2 greater than 40% is lowered as the Al_2O_3 content increases, while the viscosity of slags with SiO_2 lower than 40% increases as the Al_2O_3 increases. An increase of the MgO content raises the solidification temp. of the slag but increases its viscosity at temps. above 1350°. The results are tabulated and plotted.

M. Hosch

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

1ST AND 2ND ORDERS

3RD AND 4TH ORDERS

PROCESSES AND PROPERTIES INDEX

YAKOBSON, A-P.

C

Influence of slag viscosity on the performance of blast furnaces at Magnitogorsk. A. P. YAKOBSON. *Akad. Nauk S.S.S.R., Otdel. Tekh. Nauk, Inst. Mashinovedeniya, Soveshchanie Vyazkosti Zhidkostei i Kolloid. Rastvorov* (Conf. on Viscosity of Liquids and Colloidal Solns.), 3, 21–31 (1945); abstracted in *J. Soc. Glass Technol.*, 30 [130] 102 (1946).—Viscosity determinations were made on samples of slag including first slags, final slags, and final slags to which were added varying amounts of CaO, SiO_2, Al_2O_3, and MgO. The first slag samples were made on the basis of calculations. The samples included slags taken when the furnaces were running hard and slags taken when the furnaces were running smoothly. The results of these tests were correlated with the productivity of the heats from which slag samples were taken. For Magnitogorsk conditions a slag is preferred in which the CaO to SiO_2 ratio is 0.94 to 0.97 and $(SiO_2 + Al_2O_3)/CaO = 1.23$. A slag of this nature insures a smooth run of the furnace and a normal S content in the pig iron. Slags containing SiO_2 up to 40%, Al_2O_3 not over 18%, and MgO around 5% are quite satisfactory as far as the smoothness of the run is concerned, but the S content increases. A slag with $CaO : SiO_2 = 1$ or higher is detrimental to furnace operations when conversion pig is produced. When the furnace runs hot, however, an increased CaO content in the slag has no perceptible effect. The viscosity of slags containing SiO_2 above 40% rises rapidly, and the solidification temperature of such slags drops. The viscosity of slags containing SiO_2 greater than 40% is lowered as the Al_2O_3 content increases, while the viscosity of slags with SiO_2 lower than 40% increases as the Al_2O_3 increases. An increase of the MgO content raises the solidification temperature of the slag but increases its viscosity at temperatures above 1350°. The results are tabulated and plotted.

COMMON ELEMENTS

MATERIALS INDEX

ASM-SLA METALLURGICAL LITERATURE CLASSIFICATION

YAKOBSON, A. P.

"Production and Application of Fluxed Agglomerate," Stal', No.1, pp. 11-18, 1955

Translation M-1055, 30 Mar 56

Yakobsin, A.P.

Preparation of raw materials for blast-furnace smelting in the Magnitogorsk metallurgical combine. A. P. Yakobson (Met. Combine, Magnitogorsk). *Metallurg* 1955, No. 1, 6-8.—The most important factors in detg. highly productive operation of blast furnaces are: neutralization and beneficiation, constancy of compn. of agglomerate feed achieved by chem. analysis of raw materials, and thorough mixt. of ore and fuel.

V. N. Belousski

YAKOBSON, A. P.

"The Production and Application of Fluxed Agglomerate," Stal', No.1, 1956

Comments on translation - B-98318, 26 Jul 56

YAKOBSON, A. P.

3

1

10128* Pretreatment of Raw Materials for Smelting at the Magnitogorsk Metallurgical Combine. **Podgotovka syrykh materialov k domennoi plavke na Magnitogorskom metallurgicheskom kombinate.** (Russian.) A. P. Iakobson. *Metallurg*, 1958, no. 1, Jan. 1958, p. 3-6.

Some pretreatment features as essential to good smelting: blending of ores prior to concentration; maintenance of the desired chemical composition of the agglomerate mix; thorough crushing of flux, ore, and fuel. Tables.

metal

SOV/137-57-10-18600

Translation from: Referativnyy zhurnal, Metallurgiya, 1957, Nr 10, p 13 (USSR)

AUTHOR: Yakobson, A.P.

TITLE: Production and Utilization of Fluxed Sinter at the Magnitogorsk Metallurgical Kombinat (Proizvodstvo i primeneniye oflyusovannogo aglomerata na Magnitogorskom metallurgicheskom kombinate)

PERIODICAL: Tr. Nauchn.-tekhn. o-va chernoy metallurgii, 1956, Vol 8, pp 65-78

ABSTRACT: A method of producing fluxed sinter (FS) developed at this Kombinat makes it possible to use Magnitogorsk ores to make a sinter of high basicity that is of adequate strength and readily reducible. Adequate crushing of the ore and flux is of paramount importance in the production of such sinter. Small fractions of limestone and dolomite, pure in terms of SiO_2 and Al_2O_3, may be used as the flux, as may weak limestones and dolomites. Introduction of 3-0 mm limestone into the charge improves its permeability to gas, raises the vertical rate of sintering and improves sintering-machine output by 7-8%. The consumption of fuel for sintering under these conditions

Card 1/2

SOV/137-57-10-18600

Production and Utilization of Fluxed Sinter (cont.)

undergoes practically no change. It is established that production of FS from a mix with 1.5-2.5% S does not interfere with the burning-off of the S. The use, in blast-furnace charges of 90% FS, in which the $CaO:SiO_2$ ratio is 0.85-0.90, affords an increase in their output by 8.6% and reduces coke consumption by 6.4%.

F.K.

Card 2/2

YAKOBSON, Aleksandr Petrovich

PHASE I BOOK EXPLOITATION 442

Yakobson, Aleksandr Petrovich

Opyt raboty magnitogorskikh aglofabrik (Work Practices of Magnitogorsk Sintering Plants) Moscow, Metallurgizdat, 1957. 72 p. 2,000 copies printed.

Ed.: Marinenko, M. P.; Ed. of Publishing House: Zinger, S. L.; Tech. Ed.: Evenson, I. M.

PURPOSE: This pamphlet is intended for technical personnel and skilled workers in sintering plants. It may also be used by students of engineering colleges and technicums. The data are based on the work practice of Magnitogorsk sintering plants.

Card 1/3

Work Practices of Magnitogorsk (Cont.) 442

COVERAGE: The author reviews the handling and classification or iron ores and describes in detail the processing and beneficiation of ore fines in sintering plants. There are numerous tables containing data on screen sizes, concentration by dry and wet magnetic separation, chemical composition of the charge, and the operating conditions in sintering plants. The application of automation and the economic and technological aspects of sintering are also discussed. There are no references.

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Work Practices of Magnitogorsk (Cont.) 442

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Card 3/3 GO/jmr

7-1-58

YAKOBSON, A.P.

18(5) PHASE I BOOK EXPLOITATION SOV/1247

Dostizheniya domenshchikov Magnitogorskogo metallurgicheskogo kombinata (Achievements of Blast Furnace Operators of the Magnitogorsk Metallurgical Combine) Moscow, Metallurgizdat, 1957. 279 p. 3,000 copies printed.

Ed.: Bannykh, A.I., Professor; Ed of Publishing House: Yablonskaya, L.V.; Tech. Ed.: Attopovich, M.K.

PURPOSE: This book is intended for engineers, foundry foremen, and personnel in research institutes. It may also be useful to students and others interested in foundry practice.

COVERAGE: This book deals with achievements of the foundries of the Magnitogorsk Metallurgical Combine. The processes of preparing the charge, melting and pouring are described. Improvements in foundry methods and the theory behind these improvements are presented with numerous graphs and illustrations. The book is the combined effort of the following authors: Foreword: Bannykh, A.M. (editor); Introduction, parts 1 and 2: Bannykh, A.M.; part 3 by

Card 1/6

Achievements of Blast Furnace Operators (Cont.) SOV/1247

Stefanovich, M.A.; Chapter I, part 1 by Dorogobid, G.M.; part 2 by Shitov, I.S.; part 3 by Yakobson, A.P.; Chapter II, part 1, 2, and 3 by Galatonov, A.L.; part 4 by Bannykh, A.M. and Nayasov, A.G.; Chapter III, Galatobov, A.L. and Golchin, V.I.; Chapter IV, parts 1,2,3,4,5 and 6 by Galatonov, A.L.; part 7 by Stefanovich, M.A.; Chapter V by Stefanovich, M.A.; Chapter VI by Babarykin, N.N.; Chapter VII by Shastin, V.A.; Chapter VIII by Gornostayev, V.K. There are 51 references, of which 43 are Soviet, and 8 are English.

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YAKOBSON, A. P.

PHASE I BOOK EXPLOITATION SOV/3477

Khokhlov, Dmitriy Gavrilovich, and Aleksandr Petrovich Yakobson

Proizvodstvo oflyusovannogo aglomerata (Production of Fluxed Sinter) Sverdlovsk, Metallurgizdat, 1959. 159 p. 2,700 copies printed.

Ed.: B.N. Yur'yev; Ed. of Publishing House: A.P. Skorobogacheva; Tech. Ed.: R.M. Matlyuk.

PURPOSE: This book is intended for technical personnel in the metallurgical industry. It may also be used by students at metallurgical and mining schools of higher technical education tekhnikums.

COVERAGE: The book deals with the theory and practice of producing and applying fluxed sinter in the blast furnace. The authors discuss measures for accelerating the sintering process through the application of suction and means of improving the quality of the finished product in the sintering of various iron ores and finely ground concentrates. Engineering and economic data on the production of sinter are given. Chapter IV was written by A.P. Yakobson, and the remaining chapters

Card 1/5

Production of Fluxed Sinter SOV/3477

by D.G. Khokhov. The authors thank N.G. Makhanek, N.M. Babshkin, V.V. Dobroserdov, Yu.A. Gyrdymov, V.A. Shamarin, V.F. Sheromov, and Z.A. Shostak. There are 77 references: 69 Soviet, 4 German, 3 English, and 1 Swedish.

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AUTHOR: Yakobson, B.M. SOV/ 119-58-7-2/10

TITLE: An Electronic Machine for Centralized Control (Elektronnaya mashina dlya tsentralizovannogo kontrolya)

PERIODICAL: Priborostroyeniye, 1958, Nr 7, pp. 4-8 (USSR)

ABSTRACT: The machine MARS -300(developed by the SKTB BFA = samostoyatel'nyy konstruktorsko-tekhnologicheskiy byuro biofizapparatury) is described, which is used for the automatic recording and signaling of technological processes for 300 points. The maximum controlling velocity for all 300 points is 30 seconds. The commutation system operates on the single-stage principle, i.e. if a deviation occurs, the scanning sense is disturbed during the period of wrong parameters. The machine is able to reproduce information both in form of numbers as also as signals for a "memory". Information by numbers is immediately printed on special cards (cards for deviations from the technological process, cards for periodical recording).
On the "card for deviations" such parameters are recorded by means of red numbers as deviate from those to which the apparatus has been adjusted. Black numbers denote parameters conforming with

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